IN THE CLAIMS

Please cancel claims 7-24 without prejudice.

Please amend the following claims:

1   1.   (Currently Amended) A method [of producing a uniform duty cycle output from a

2   random bit source, the method] comprising [the steps of]:

3   testing [the] a duty cycle of [the] a random bit source;

4   varying [the] an output voltage of a voltage source if the duty cycle [is] has not

5   substantially reached a first threshold [fifty percent]; and

6   iteratively altering the output voltage of the voltage source until the duty cycle

7   [is] has not substantially reached the first threshold [fifty percent].

1   2.   (Original)   The method of claim 1 further comprising:

2   periodically latching a high frequency signal in response to a low frequency

3   signal; and

4   outputting one or more binary digits corresponding to a voltage level of the

5   latching high frequency signal.

1   3.   (Currently Amended) The method of claim 1 wherein varying the output voltage

2   of the voltage circuit further comprises updating [the] a threshold voltage of a flash

3   memory cell in the voltage circuit.

1   4.   (Original)   The method of claim 1 wherein varying the output voltage of the

2   voltage circuit further comprises:

3   varying an input current to a non-inverting input of a differential amplifier to

4   produce a first input voltage; and

5   varying an input current to an inverting input of the differential amplifier to

6   produce a second input voltage.

1   5.   (Original)   The method of claim 1 wherein varying the output voltage of the

2   voltage circuit further comprises altering the number of transistors in the voltage circuit

3   determining the output voltage.

1   6.   (Original)   The method of claim 1 wherein the method of producing a uniform

2   duty cycle output from a random bit source is used in a random number generator

3   operable to produce random binary numbers for use in a cryptographic system for secure

4   communications between a plurality of computers in a network.

Please add the following new claims.

1   25.   (New) The method of claim 1 wherein the first threshold is fifty percent.

1   26.   (New) A random bit source comprising:

2   a latch to produce a uniform duty cycle output;

3   a component to test the duty cycle; and

4   a programmable voltage source to vary an output voltage if the duty cycle has not

5   substantially reached a first threshold and iteratively alter the output voltage until the

6   duty cycle has not substantially reached the first threshold.

1   27.   (New) The random bit source of claim 26 further comprising:

2   a high frequency oscillator to generate a high frequency signal; and

3   a low frequency oscillator to generate a low frequency signal;

4   wherein the latch periodically latches the high frequency signal in response to a

5   low frequency signal and transmits one or more binary digits corresponding to a voltage

6   level of the high frequency signal.

1 28. (New) The random bit source of claim 26 wherein the programmable voltage

2 source comprises a flash memory cell, wherein varying the output voltage of the voltage

3 circuit further comprises updating a threshold voltage of the flash memory cell.

1 29. (New) The random bit source of claim 26 wherein the programmable voltage

2 source further comprises differential amplifier, wherein varying the output voltage of the

3 programmable voltage source further comprises varying an input current to a non-

4 inverting input of the differential amplifier to produce a first input voltage and varying an

5 input current to an inverting input of the differential amplifier to produce a second input

6 voltage.

1 30. (New) The random bit source of claim 26 wherein varying the output voltage of

2 the programmable voltage source further comprises altering the number of transistors in

3 the programmable voltage source determining the output voltage.

1 31. (New) The random bit source of claim 26 wherein producing a uniform duty

2 cycle output from the random bit source is used in a random number generator operable

3 to produce random binary numbers for use in a cryptographic system for secure

4 communications between a plurality of computers in a network.

1 32. (New) The random bit source of claim 26 wherein the first threshold is fifty

2 percent